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**NEWS  
OF THE  
IRRIGATION  
AND  
DRAINAGE  
DIVISION  
OF  
ASCE**



**JOURNAL OF THE IRRIGATION AND DRAINAGE DIVISION  
PROCEEDINGS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS**



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## DIVISION ACTIVITIES

### IRRIGATION AND DRAINAGE DIVISION

#### Proceedings of the American Society of Civil Engineers

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#### NEWS

December, 1961

#### Purpose of the Irrigation and Drainage Division

"To promote advancement in thought and practice in the field, to clarify fundamental principles, to disseminate knowledge of current practice and the results obtained therefrom, and to bring about closer acquaintance of those engaged in irrigation and drainage engineering. The field of work of the Irrigation and Drainage Division includes all engineering concerned with the application of water to land or the removal of water therefrom and all of the technical, economic, and social aspects of the association of engineering with these problems. In brief, it covers all phases of irrigation, drainage, and reclamation of lands."

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#### EXECUTIVE COMMITTEE

N. A. Christensen, Chairman, 412 Haushaw Road, Ithaca, New York  
Herbert E. Prater, Vice-Chairman, 2001 S. Madison Street, Denver 10, Colorado  
Paul H. Berg, Session Programs Chairman, P. O. Box 737, McCook, Nebraska  
William W. Donnan, Session Programs Vice-Chairman, 3730 Elizabeth Street, Suite G, Riverside, California  
Merrill Barber, Board Contact Member, 3269 Chadbourne Road, Shaker Heights, Ohio  
Carl R. Wilder, Secretary, 816 West Fifth Street, Los Angeles 17, California  
Kenneth O. Kauffman, Newsletter Editor, 902 East "G" Street, McCook, Nebraska

#### CALENDAR OF EVENTS

February 19-23, 1962. National Convention, ASCE, Houston, Texas, Hotel Shamrock. The Irrigation and Drainage Division will sponsor four half-day sessions at the Houston Convention.

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May 14-18, 1962. National Convention, ASCE, Omaha, Nebraska, Sheraton-Fontenelle Hotel. The convention theme will be Water Resources. Four sessions will be co-sponsored by the International Commission on Irrigation and Drainage and the Irrigation and Drainage Division. Two sessions will be sponsored solely by the Irrigation and Drainage Division.

#### Future National Conventions

October 8-12, 1962, Detroit, Michigan  
February 25 - March 1, 1963, Atlanta, Georgia  
May 20-24, 1963, Milwaukee, Wisconsin  
October 7-11, 1963, San Francisco, California  
February 24-28, 1964, Cincinnati, Ohio  
May 11-15, 1964, Salt Lake City, Utah  
October 19-23, 1964, New York City, New York

#### CHANGES IN COMMITTEE PERSONNEL

October 1 marked the end of another successful year of division activities. Mr. Kenneth Volk outgoing chairman of the Executive Committee, is to be commended for a year of progressive leadership. Mr. N. A. Christensen, the new chairman, will be ably assisted during the coming year by the remaining members of last year's committee plus two new members, Mr. Merrill Barber, Board Contact Member and Mr. Carl Wilder, Secretary.

The Local Sections Committee has been revised and consists of the following members: Roland W. Fife, Chairman, S. Marvin Litz, Auther Soderberg, Gunnar Thorsky and N. A. Christensen.

The Publications Committee has also experienced some personnel changes and now consists of the following members: Calvin Warnich, Chairman, Charles Baker, Harry Blaney, Sr., Paul Berg, and Sol Resnich.

Mr. Thelo Perrott has been appointed to fill a vacancy in the Committee on Water Conservation.

Mr. Perrott has also been appointed as Chairman of the Task Group on Methods of Conserving Water. Mr. Robert E. Price will fill the other vacancy in this Task Group.

#### MEETING OF THE EXECUTIVE COMMITTEE

The Executive Committee of the Irrigation and Drainage Division met in Denver on September 23 and 24, 1961. Those in attendance included Chairman Kenneth Q. Volk, Vice-Chairman N. A. Christensen, and contact member for board of direction Charles Barber, members Herbert E. Prater, Paul H. Berg and the newly appointed member to the committee, William W. Donnan, who is appointed for the term October 1, 1961 to September 30, 1965, and the newly appointed Secretary, Carl Wilder.

The committee discussed the programs for the coming conventions at Houston and Omaha. The program for the Houston Convention consisting of four one-half day sessions on the general subjects: Research, Drainage, Construction (joint session with construction division) and a general session on Irrigation and Drainage, has been confirmed. The program for the Omaha Convention is now being developed by the Session Programs Chairman Herbert E. Prater. Since the theme of this convention will be Water Resources there will be six one-half day sessions. The U. S. National Committee of the

International Commission on Irrigation and Drainage will assist in developing the program for four sessions and the remaining two sessions will be sponsored by the Irrigation and Drainage Division. The committee agreed that it would not sponsor technical sessions at the Detroit Convention.

An effort is being made, through cooperation with the Kansas City section, to hold an irrigation and drainage conference in Kansas City in November 1962. Such a conference would present technical sessions covering all the aspects of irrigation and drainage.

The Executive Committee reviewed the activities of the various administrative and technical committees. It was decided that since the Committee on Consolidation and Betterment of Old Irrigation Systems has fulfilled its function it should be abolished.

The report received from the Committee on Irrigation and Drainage Practices in Humid Areas indicated that this committee is in the process of reorganization and several matters in this connection were taken under advisement by the Executive Committee.

The Executive Committee did agree that in accordance with society policy a manual on irrigation in humid areas would not be prepared.

The next meeting of the Executive Committee is scheduled for May 1962 at Omaha immediately following the convention.

#### MEETING OF COMMITTEE FOR IRRIGATION AND DRAINAGE PRACTICES IN HUMID AREAS

The committee for Irrigation and Drainage Practices in Humid Areas held its first meeting since it met in New Orleans on March 7 and 8, 1960. This meeting was held in Indianapolis, Indiana September 16 and 17, 1961.

Those present included the Chairman, M. C. Boyer, the Chairman for the Task Committee for Water Rights Laws in Humid Areas, Don Schiesswhol, Harold Scott, Sr., and Paul H. Berg.

Over the past 18 months it had been necessary for several members of the committee to resign for various reasons, consequently, it was felt important that the committee be reorganized and reconstituted. The committee made several recommendations for organizational change which were submitted to the Executive Committee of the Irrigation and Drainage Division at its meeting on September 23 and 24, 1961. The committee agreed to furnish papers for at least one technical session at the Omaha Convention in 1962. It also will assist with the program at future irrigation and drainage conferences.

The committee recommended to the Executive Committee that another meeting of the Irrigation and Drainage Practices in Humid Areas Committee be held at the time of the Omaha Convention. Mr. M. C. Boyer resigned as Chairman of the Committee and Mr. Harold A. Scott, Sr., was selected as Chairman. Mr. Boyer will remain on the committee.

#### ACTIVITIES OF TASK GROUP ON WATERSHED MANAGEMENT

Mr. Leonard Schiff, Chairman, reports that the Task Group on Watershed Management has prepared a "Questionnaire on Watershed Management Studies in the United States." This questionnaire is almost ready for reproduction in final form. It asks for information on: (1) Location of reporting agency; (2) Types of personnel engaged in studies; (3) Overall purpose of work and

specific objectives; (4) List of studies concluded underway; proposed; (5) Work activities with a check-off list; (6) Major results in brief form; (7) Material covered by publications and reports; and (8) Application (use of results - general and specific).

The questionnaire will be sent to agencies concerned with such studies probably through the administrative headquarters of each agency. The questionnaire will be accompanied by an example of the description desired. The example indicates concise summaries are desired. The transmittal letter will state the purposes of the committee. The composite report to be produced by the Committee will be sent to all contributing agencies, interested members of organizations and interested individuals. It is believed the report will be a valuable reference in water shed management.

#### PROGRESS REPORT OF THE WATER CONSERVATION COMMITTEE

Purpose: To study and report on problems connected with the conservation of water supplies for irrigation use; to promote the collection and compilation of data pertaining to water conservation, giving particular attention to the following:

- (a) Methods of conserving water.
- (b) Consumptive use of water for irrigated crops and native vegetation.
- (c) Re-use of drainage water.
- (d) Watershed management.
- (e) Water Quality

And, to act as a clearing house for the coordination and dissemination of information on these subjects at meetings and division conferences.

The members of the Committee are:

Harry F. Blaney, Sr., Chairman  
William C. Dumm  
P. H. McGauhey  
Lloyd E. Myers, Jr.  
Leonard Schiff

The Committee held a meeting in Los Angeles, California on February 17, 1961 and all members were present. Also, Kenneth Q. Volk, Chairman and William W. Donnan, Secretary, of the Executive Committee of Irrigation and Drainage Division, attended the meeting.

Progress reports by the Chairman of the Task Group on (1) Consumptive Use of Water by Irrigated Crops and Native Vegetation; (2) Methods of Conserving Water; (3) Re-Use of Drainage Water; (4) Water Quality; and (5) Watershed Management, were presented and approved.

The Committee and the Task Groups sponsored three technical sessions of the Irrigation and Drainage Division on Water Desalinization and Conservation of Water at the ASCE National Convention, June, 1960 at Reno, Nevada.

At the ASCE National Convention in April, 1961 at Phoenix, Arizona, the Water Conservation Committee sponsored the following papers at technical sessions:

- (1) Salvage of Water by Controlling Phreatophytes
- (2) Deterioration of Water Quality in Irrigation Practice
- (3) Use of Return Flow in Irrigation Project Design
- (4) Importance of Re-Use of Waste Water

- (5) Watershed Management - A New Science
- (6) Water Waste by Phreatophytes in Western States
- (7) Evaporation at High Elevations in the San Joaquin Valley, California

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#### ACTIVITIES OF TASK GROUP ON CONSUMPTIVE USE OF WATER FOR IRRIGATED CROPS AND NATIVE VEGETATIONS

Purpose: To assemble and codify all known consumptive use measurements and all known empirical methods for estimating consumptive use unit values with a view to the preparation of a manual for determining consumptive use of water primarily for irrigation purposes in various areas of the world.

The members of this Task Group are:

Harry F. Blaney, Sr., Chairman  
Wayne D. Criddle  
Clyde E. Houston  
Arnold I. Johnson  
Marvin Litz

The corresponding members are:

Wendell G. Munson  
John W. Shannon  
John T. Phelan

The Group sponsored papers on consumptive use at the technical session of ASCE Conventions in June, 1960, Reno, Nevada and in April, 1961, Phoenix, Arizona.

Publications by the members included:

- (1) Method of Estimating Consumptive Use of Water for Agriculture - by W. C. Munson, No. 2672, ASCE Proceedings, December 1960.
- (2) Consumptive Use and Water Waste by Phreatophytes by Harry F. Blaney, Sr., No. 2929, ASCE Proceedings, September, 1961.
- (3) Selected Bibliography on Evaporation and Transpiration by T. W. Robinson and Arnold I. Johnson, Water-Supply Paper No. 1539-R, U. S. Geological Survey, 1961. (500 References)

A report entitled "Determining Consumptive Use and Irrigation Water Requirements," by Harry F. Blaney and Wayne D. Criddle for publication by the U. S. Department of Agriculture. (Includes data of United State and Foreign countries.)

Wayne D. Criddle spent a few months in Africa and prepared a report on "Irrigation Development and Practices of Kenya," 1961.

Clyde E. Houston who has been serving as Agricultural Engineer on Water Utilization for the United Nations, 1960-61, Rome, Italy, will return to California soon.

Harry F. Blaney was appointed by the Secretary of the U. S. Department of Agriculture on a Working Group to report on "Research Needs on the Problem of Saltcedars and other Phreatophytes." The report estimated that these water-loving plants occur on nearly 16 million acres in Western United States and consume about 25 million acre feet of water annually, twice the annual flow of the Colorado River. Recommendations included studies to determine evapotranspiration losses by phreatophytes in problem areas and the amount of water that might be salvaged through control and management of phreatophytic vegetation in major watersheds.



One or two members of the Task Group prepared discussions of a paper entitled "Estimating Potential Evapotranspiration," by W. Russell Hamon, No. 2817, published in Journal of the Hydraulic Division, May, 1961.

#### LAND AND WATER RESOURCE PLANNING IN TEXAS

A paper published in the November Journal of the Waterways and Harbors Division should be of considerable interest to members of the Irrigation and Drainage Division. The paper "Land and Water Resource Planning in Texas" was written by Charles D. Curran, F. ASCE, and Forney W. Fleming, M. ASCE. An abstract of the paper follows.

The U. S. Study Commission-Texas is a new approach by the Federal government to the coordination of Federal, state, and local interests for areawide planning for land and water resources. Circumstances leading to its formation are discussed. The Commission's objectives, composition, organization, and modes of operation are described and the participating agencies are enumerated. It is concluded that the approach has merit in achieving coordination of multi-level governmental planning.

Proceedings Paper 2989 may be obtained, on request, from Society Headquarters, 345 East 47th Street, New York 17, N.Y.



